NDOW 1961

JARBIDGE RIVER POPULATION STUDY

Introduction

The West Fork of the Jarbidge River is one of the larger streams in northeastern Nevada. The steep gradient and relative infertility are not conducive to producing large fish, but conditions are adequate to maintain a good population of small wild rainbow trout. Catchable trout are stocked each year. Releases have varied from 2553 pounds in 1956 to 1000 pounds in 1958 and 1961. The value of this management practice is questionable, as it is evident from past creel checks that a large percentage of the catch is composed of wild rainbows.

A road parallels the stream from the Idaho line to the headwaters, and several permanent Forest Service campgrounds are present. As a result, a moderate amount of angler usage occurs during the summer months. It was estimated that this stream supported 2100 angler days in 1957.

A limited population study was initiated in 1961. All fish planted were marked by removal of the adipose fin. Thirty-five hundred rainbows averaging 8% inches were stocked with half of this allotment released in late June and the remainder stocked in mid-July. Periodic creel checks were made during July and August to obtain angler success and catch data. The stream was sampled with electro-fishing gear in October.

Results

Twenty-two spot checks were completed during the past year. The average success of 75 anglers was 3.9 fish per hour. Angler success data obtained during the past six years compared to the annual releases of catch-

able trout are listed in the following table.

Year	Total No. Anglers Checked	Ave. Success (fish per hour)	Pounds of Catchable Trout Planted
1956	10	9-3	2,553
1957	17	3.3	1,400
1958	28	1.6	1,000
1959	L7	1.5	1,328
1960	26	3.8	1,328
1961	75	3.9	1,000

Variations in angler success could not be correlated with yearly plantings.

This is probably due to the limited amount of creel census data during most years.

It is evident that total usage during 1961 was considerably less than the estimate 1957 estimate of 2100 angler days. Pressure during the past year was probably between 500 and 1000 angler days.

Only twenty per cent of the 298 angler-caught trout examined were from the 1961 plantings. Average size was 6.8 inches. Wild trout averaged 6.1 inches, whereas hatchery rainbows averaged 9.5 inches. The length frequency distribution was as follows:

Seven stream sections totaling 1065 feet in length were sampled in October. One hundred and six trout were captured with 35 being 6 inches or over. Only mine of the catchable trout had been stocked in 1961. Eleven hatchery fish were taken compared to 95 wild trout. The population estimate was 525 trout per mile including 173 catchables per mile. Six hundred feet of stream was sampled in August 1954. The trout population, at that

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time, averaged 387 fish per mile and lill catchables per mile.

The game fish population in 1954 was composed of whitefish and brook, rainbow, and cutthroat trout. No brook or cutthroat trout were observed in 1961. The absence of brook trout is of particular significance, as over 5000 pounds of brock trout have been stocked in the Jarbidge River since 1954. The failure of this species to establish itself is difficult to understand.

Conclusions

The data obtained during the past year indicate that hatchery releases could be substantially reduced without adversely affecting fishing success. It is suggested that the 1962 allotment be reduced to 750 pounds. change should be evaluated through creel checks and a fall population sampling.

No brook trout should be stocked in the future. Due to the failure of these fish to establish themselves following five years of releases, it appears that this species is not well suited to this environment.

> Donald J. King District Fisheries Manager Owyhee District

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L. POPULATION DENSITY (No. Fish per Mile, etc.)

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COMMENTS

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L. POPULATION DENSITY (No. Fish per Mile, etc.)

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MONTHLY FISHERIES REPORT - 2

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L. POPULATION DENSITY (No. Fish per Mile, etc.)

DISTRICT

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L. POPULATION DENSITY (No. Fish per Mile, etc.)

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